CHAPTER 32. AIRMAN QUALIFICATION REQUIREMENTS FOR AIRCRAFT FOR WHICH THE OPERATING LIMITATIONS REQUIRE AN FAA ISSUED AUTHORIZATION TO ACT AS PILOT-IN-COMMAND

SECTION 1. BACKGROUND

1. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODE: 1579

2. OBJECTIVE. This task provides guidance on procedures and policies for issuing an authorization for an airman to fly an aircraft as a Pilot-in-Command (PIC) for which the Operating Limitations require an FAA issued authorization to act as PIC. This authorization may be listed on an airman certificate designating other authorized aircraft that the airman is qualified to fly. These aircraft are generally aircraft with Special Airworthiness Certificates that identify them as "large" aircraft, turbojet-powered aircraft, or other aircraft specifically identified by the Administrator as described in this chapter that require a specific authorization for a person to act as PIC during flight. Figure 32-1 lists some of the aircraft so identified.

3. GENERAL.

A. Background. There has been an increase in requests for authorizations to operate aircraft in the experimental category, including surplus military aircraft, turbojet-powered, experimental/amateur-built, or other foreign-manufactured aircraft for which no type rating exists. Examples of such models are the Tiger, Invader, MIG-15, Fouga Magister, and the BD-5J.

(1) Operating limitations issued for aircraft such as these may require the PIC to either hold a type rating on his or her pilot certificate for aircraft that have a type rating designation, or obtain an authorization from the Federal Aviation Administration (FAA) to fly such aircraft.

(2) Because type rating designations for many of these aircraft have not been established, a type rating is not available to operate certain aircraft. In the absence of type ratings for these aircraft, it is the FAA's objective to ensure for the pilots flying these aircraft a level of safety and proficiency similar to what is available for an aircraft with a type rating.

(3) The National Program Office for Vintage and Experimental Aircraft (the "NPO") provides policy, guidance and oversight of large vintage and experimental/exhibition aircraft. Questions concerning these areas should be directed to the NPO.

(4) This chapter provides guidance to aviation safety inspectors (ASI), instructors, and experimental aircraft examiners (EAE) on the appropriate methods for a pilot to become qualified to operate U.S. and non-U.S. experimental/exhibition aircraft (see Figure 32-1) that the Operating Limitations require an FAA issued authorization to act as PIC. Additional guidance is provided for issuing an authorization to fly these aircraft and listing any applicable limitations on an airman certificate.

B. Definitions.

(1) Aircraft Sets. Aircraft sets, for the purposes of this chapter, means aircraft of similar design and construction. Specific aircraft sets, such as piston-powered, single-engine, and conventional gear, are listed in Figure 32-1.

(2) Aircraft Type. Aircraft type, as stated in this chapter, means a specific make and model such as the Mustang, MiG-15, or Dauntless.

(3) Authorization. An authorization issued by the FAA or by an authorized representative of the FAA on an airman certificate for a particular U.S. or non-U.S. experimental/exhibition aircraft for which the Operating Limitations require an FAA issued authorization to act as PIC. Issuance of this authorization parallels the issuance of a type rating under Title 14 of the Code of Federal Regulations (14 CFR) part 61. This aircraft authorization is listed specifically on the airman certificate or may be in the form of a letter of authorization.

(4) Authorized Instructor. This authorization is issued to an individual, granting him or her, the authority to serve as an authorized instructor in specific aircraft that have been issued a special airworthiness certificate and for which the Operating Limitations require an FAA issued authorization to act as PIC. Issuance of this authorization parallels that of a certificated flight instructor (CFI) under part 61. This authorized instructor may provide training and a recommendation for the evaluation of applicants for authorizations to operate specific aircraft in a special airworthiness category for which the Operating Limitations require an FAA issued authorization to act as PIC. Authorized instructor certificates were issued to the holders of letters of operational authority (LOOA). The issuance of authorized instructor certificates ended on July 31, 2005. No new authorized instructor certificates will be issued under this program.

(5) Comparable Sets of Aircraft. Comparable, as stated in this chapter, means an aircraft with similar characteristics. For an aircraft to be considered comparable it must have sufficient similar characteristics that a pilot's proficiency in one make and model is qualifying for the other, allowing for some minor differences in flying characteristics. Similar characteristics that may be identified are:

(a) Original intended use, such as student training or advanced combat roles.

(b) Number of engines.

(c) Piston- or turbine-powered.

(d) Landing gear configuration.

(e) Wing design (swept or straight-wing).

(f) Performance factors (subsonic, transonic, or supersonic design).

NOTE: The application of comparability is discussed in paragraph 8.

(6) Experimental Aircraft Examiner (EAE). An individual designated by the FAA to conduct evaluations of applicants who wish to add an aircraft authorization to their pilot certificate. These pilot certificate authorizations are applicable to aircraft certificated in the experimental category for the purposes of exhibition (14 CFR part 21, § 21.191(d)). EAEs serve in a national capacity and may be authorized to conduct evaluations in one or more types of aircraft. (The process to become an EAE is described in Volume 2, Chapter 15, Designate/Renew a General Aviation Pilot Examiner.)

NOTE: Only ASIs specifically authorized by the NPO may conduct practical tests. These ASIs authorized by the NPO may perform tasks in this chapter that are otherwise accomplished by an EAE.

(7) National Program Office ("the NPO"). The General Aviation and Commercial Division, AFS-800, is the National Program Office for Vintage and Experimental Aircraft and has oversight authority of the EAE program.

(8) Sponsoring Organization. A recognized organization such as a museum or pilot's association that has developed procedures acceptable to the FAA for nominating individuals for selection as an authorized instructor or an EAE.

(9) Surplus Military Aircraft. Unless otherwise stated in this chapter, the term applies to both U.S. and non-U.S. manufactured, turbine- and piston-powered aircraft declared as surplus by an appropriate governmental body.

(10) Temporary Letter of Authorization (LOA). An LOA may be issued to an airman for practice in a single-place (or single control) aircraft. The issuance of temporary LOAs should be coordinated with the NPO. (See Figure 32-2.)

C. The following paragraphs primarily pertain to the issuance of an authorization for restricted (part 21, § 21.185) and experimental category aircraft with airworthiness certificates issued for the purpose of exhibition (§ 21.191(d)), air racing (§ 21.191(e)), and operating amateur-built aircraft (§ 21.191(g)). Experimental or other foreign aircraft certificated for other purposes such as research and development (§ 21.191(a)), showing compliance with regulations (§ 21.191(b)), crew training (§ 21.191(c)), and market survey (§ 21.191(f)) are normally granted only to manufacturers and will not be discussed here. See the current edition of FAA Order 8130.2, Airworthiness Certification of Aircraft and Related Products, for further guidance. Aircraft issued an experimental certificate under § 21.191 are issued operating limitations per part 91, § 91.319.

4. AIRCRAFT REQUIRING AUTHORIZATIONS. Part 61, § 61.31(a) requires type ratings for certain aircraft. This section of the rule specifies that persons who act as PIC of large aircraft, turbojet-powered airplanes, and other aircraft specifically identified by the FAA must hold a type rating for that aircraft. Type rating designations are supplied by AFS-800 after recommendation by a Flight Standardization Board (FSB) and are only applied to aircraft that have completed the type certification process. If the manufacturer (or builder) has not applied for a type certificate, no type rating is available.

A. However, § 61.31(b) does provide for an authorization, in the form of an LOA, to operate, on a temporary basis, an aircraft that would normally have a type rating. When applied to aircraft that have a type rating, Volume 2, Chapter 33, Issue a Letter of Authorization in Lieu of a Type Rating, should be used for guidance. When applied to operation of aircraft for which the Operating Limitations require an FAA issued authorization to act as PIC, the authorization is part of part 91 and special procedures apply, with limitations.

> **NOTE: A manufacturer (or type certificate holder) who wishes to obtain a type approval for an aircraft so that a pilot may obtain a rating based on that designation must submit the aircraft for an evaluation to an FSB. The FSB determines the type rating, certification, and training requirements for new or modified aircraft.**

(1) A person may act as PIC of an aircraft that has a type designation if that person holds a type rating for that aircraft. The type rating is also valid for the experimental or restricted category version of the same aircraft.

(2) An airman who holds a type rating for that aircraft model may act as PIC for all of the aircraft of the same model, regardless of the type of airworthiness certificate held for the aircraft. The applicant may complete the appropriate aircraft type rating practical test in the subject aircraft. The holder of such an aircraft type rating must adhere to the applicable provisions of parts 61 and 91, and any limitations appropriate to the operation of an aircraft with an experimental airworthiness certificate.

B. Certain aircraft which have been issued special U.S. airworthiness certificates, and for which a type rating designation has not been established, require an authorization (previously an LOA) for the operation of the aircraft by the PIC. Aircraft requiring authorizations for operation include:

(1) Those aircraft that would normally require a type designation and require the PIC to hold a type rating, and which fall under the requirements of § 61.31(a)(1) through (3), including:

(a) Aircraft with a maximum gross weight in excess of 12,500 pounds (§ 61.31(a)(1)).

(b) Turbojet-powered aircraft (§ 61.31(a)(2)).

(2) Piston-powered surplus military experimental aircraft with more than 800 horsepower and with a never-exceed speed (V_{NE}) in excess of 250 knots (e.g., Bearcat, certain Trojan models, and the Messerschmitt BF-109).

(3) Any turbine-powered surplus military or turbojet-powered experimental aircraft for which the FAA has not established a type rating. Examples include the MiG-15, Skyhawk, Mohawk, and BD-10.

(4) Both piston- and turbine-powered rotorcraft whose maximum gross weight exceeds 12,500 pounds.

(5) Non-U.S. registered aircraft operating under a special flight authorization and operated by a pilot with a U.S. pilot certificate only may require an aircraft authorization.

C. If a second-in-command (SIC) is required by the aircraft operating limitations, the SIC must be qualified in accordance with part 61, § 61.55. The SIC need not hold an aircraft authorization.

> **NOTE: A limited number of aircraft, such as the Mustang P-51 C, D, and K series, are currently certificated in the limited category. Since these aircraft have been issued a type certificate, no additional aircraft authorization is required for an airman to act as PIC. However, should the aircraft be recertificated in the experimental category, an aircraft authorization is required.**

5. ELIGIBILITY FOR AN AIRCRAFT AUTHORIZATION. Aircraft authorizations may be

issued by either an EAE or an ASI (Operations) authorized by the NPO. Since "other aircraft authorizations" are similar to type ratings, the eligibility, application, issuance, and limitations will be similar to a type rating. By the same reasoning, once an "other aircraft authorization" is issued to an individual, then like a type rating, it should be issued for an indefinite period of time, or without an expiration date. Requirements for eligibility for an authorization include completion of training, testing, and evaluation in the same manner as would be required for a type rating.

A. To be eligible for an authorization to act as PIC of a surplus military turbojet-powered aircraft, an applicant must:

(1) Possess at least a U.S. private pilot certificate with an appropriate category and class rating (e.g., airplane, single-engine land);

(2) Hold an instrument rating;

(3) Possess at least a valid U.S. third-class medical certificate;

(4) Have logged a minimum of 500 hours of pilot flight time in the aircraft category and have completed the U.S. armed services qualification checkout described in paragraph 7A(1) of this section; or

(5) Have logged a minimum of 1,000 hours pilot flight time, including 500 hours as PIC in the aircraft category, and have completed one of the training requirements of paragraph 7A of this section.

B. To be eligible to serve as PIC of a surplus military propeller-driven airplane that has a maximum gross takeoff weight exceeding 12,500 pounds, or which has a horsepower rating of more than 800 horsepower and a V_{NE} that exceeds 250 knots, an applicant must:

(1) Possess at least a U.S. private pilot certificate with an appropriate category and class rating (e.g., airplane, single-engine land);

(2) Possess at least a valid U.S. third-class medical certificate;

(3) Have logged a minimum of 500 hours of pilot flight time; and

(4) Have completed one of the training requirements of paragraph 7A of this section.

C. To be eligible to serve as PIC of a turbojet- or turbofan-powered aircraft not considered to be a surplus or replica military aircraft, an applicant must:

(1) Possess at least a U.S. private pilot certificate with an appropriate category and class rating;

(2) Possess at least a valid U.S. third-class medical certificate;

(3) Hold an instrument rating if the aircraft is equipped for instrument flight rules (IFR) flight operations per part 91, § 91.205(d) and (e); and

(4) Have completed either of the training requirements of paragraph 7A(2) of this section.

D. To be eligible to serve as PIC of a large aircraft (more than 12,500 pounds maximum gross takeoff weight) not considered to be a surplus or replica military aircraft, an applicant must:

(1) Possess at least a U.S. private pilot certificate with an appropriate category and class rating;

(2) Possess at least a valid U.S. third-class medical certificate; and

(3) Have completed either of the training requirements of paragraph 7(A)(2) of this section.

E. To be eligible for an authorization to serve as PIC of a surplus military piston-powered aircraft that has a horsepower rating of more than 800 and a V_{NE} that exceeds 250 knots, an applicant must:

(1) Possess at least a U.S. private pilot certificate with an appropriate category and class rating (e.g., airplane, single-engine land);

(2) Possess at least a valid U.S. third-class medical certificate;

(3) Have logged a minimum of 500 hours of pilot flight time;

(4) Have completed one of the training requirements of paragraph 7A; and

(5) Have logged 50 hours complex time.

6. APPLICATION FOR AN AIRCRAFT AUTHORIZATION.

A. An applicant who meets the requirements of paragraph 7A(1) may submit an application letter; FAA Form 8710-1, Airman Certificate and/or Rating Application; and appropriate documentation showing PIC qualification or assignment (per paragraph 6B below) to an EAE or the Flight Standards District Office (FSDO) where the applicant's primary base of operations is located. An evaluation will be made of the documentation to determine if the applicant meets the minimum requirements for issuance of an aircraft authorization without further testing.

B. An applicant for an authorization must provide copies of his or her training records or logbook records to document his or her ground and flight training to the EAE who will conduct the practical test. An evaluation will be made of the documentation to determine if the applicant meets the minimum requirements for the issuance of an aircraft authorization. Upon successful completion of the practical test, the EAE will issue an aircraft authorization.

NOTE: Aliens seeking flight training must register with the Transportation Security Administration's Alien Flight Student Program (AFSP) at the following Web site: https://www.flightschoolcandidates.gov, or call (703) 542-1222.

7. TRAINING REQUIREMENTS. The FSDO or EAE must receive documented evidence of appropriate training before it can issue the authorization (Figure 32-3). If the applicant has received training under paragraph 7A(1) or (2) below, he or she must provide appropriate documentation of the training before the EAE or FSDO issues an authorization.

A. Training Options. The applicant's training program may consist of any one of the following:

(1) The applicant may have completed a U.S. military service qualification checkout to act as PIC in a specific type of aircraft. The applicant must also have logged 10 hours as PIC in the specific type of aircraft during the preceding 12 calendar-months. Authorizations may only be issued for the operation of civil aircraft. Authorizations will not be issued based upon military competence unless the applicant can show a need for a civil authorization. Typically, this would be shown by a letter from a civil operator requesting an authorization for the particular airman.

(a) The applicant must present this documentation to an EAE for issuance of an authorization for this specific type of aircraft.

(b) If more than 12 calendar-months have elapsed since acting as PIC in the specific aircraft, the applicant must meet the minimum recency of experience requirements of paragraph 12 and successfully complete a practical test/evaluation given by an EAE.

(2) The applicant must receive and log both ground and flight training as listed in paragraph 7B below. Upon completion of the training program, the CFI or authorized instructor must endorse the applicant's training record and certify that the applicant is proficient to take the required practical test/evaluation. This endorsement must be made in the applicant's logbook and on the back of Form 8710-1 within the 60-day period preceding the date of the practical test/evaluation.

(a) Training in the specific aircraft type may be provided by a CFI or the holder of an authorized instructor certificate for multiseat aircraft that have functioning dual controls.

(b) For single-seat aircraft, ground and flight training in a comparable aircraft (multiseat with functioning dual controls), as defined in paragraph 8, may be provided by a CFI or authorized instructor. However, the applicant must complete a transition training program in the specific single-seat aircraft type with ground instruction provided by a CFI or authorized instructor for that specific aircraft. Upon successful completion of the training, the applicant must have a logbook endorsement for solo flight from a CFI or authorized instructor before flight in the single-seat aircraft. This endorsement for solo flight can be used for proficiency flying in preparation for the practical test/evaluation. The endorsement must be limited to 30 days and will limit the applicant's area of operation to the local area with takeoffs and landings only at the applicant's home base airport. No cross-country authorizations should be included. The solo endorsement can include any other limitations deemed necessary by the authorized instructor. Solo endorsements may only be issued if the aircraft operating limitations permit operations based on a logbook endorsement. If the operating limitations do

not permit "logbook endorsements" after completion of the training, the airman should contact the local FSDO and obtain a temporary LOA to permit limited local area solo practice. Temporary LOAs should be issued only when required by the aircraft operating limitations and when necessary for solo practice and to complete the practical test for an authorization to be added to the airman certificate (Figure 32-2).

B. Training Requirements.

(1) Training must meet the standards specified in the appropriate parts of the practical test standards (PTS) for type ratings (FAA-S-8081-5, Airline Transport Pilot and Aircraft Type Rating, Practical Test Standards for Airplane, current edition). At a minimum, an applicant's ground training program must include the following requirements:

(a) The airplane's systems and components.

(b) Ground emergency procedures, including abnormal procedures, if described in the airplane's checklist.

(c) Flight emergency procedures, including abnormal procedures, if described in the airplane's checklist.

(d) Use of performance charts, including (but not limited to) takeoff, climb, cruise, and landing.

(e) Fuel requirements and fuel management.

(f) Runway requirements and limitations (e.g., minimum runway lengths and crosswind limits of the airplane).

(g) Contents of the Aircraft Flight Manual (AFM) or equivalent.

(h) Operating limitations prescribed for the specific airplane, both manufacturer's and FAA-issued.

(i) Operation of the airplane in the high-altitude realm, if applicable.

(j) Recovery from abnormal flight profiles based on specific aircraft characteristics.

(2) The applicant's flight training program must meet the standards established in FAA-S-8081-5. The recommending instructor must have personally flown with the applicant in the type airplane (for multiseat with functioning dual controls) or a comparable type (for single-seat). This training must include the following requirements:

(a) Airplane preflight.

(b) Crew resource management, including single pilot, as appropriate.

(c) Powerplant start procedure, taxiing, and pretakeoff checks.

(d) Normal and crosswind takeoff.

(e) Powerplant failure during takeoff.

(f) Rejected takeoff.

(g) Flight at critically slow airspeeds in all appropriate configurations.

(h) Approaches to and recovery from stalls, as appropriate.

(i) Recovery from normal and abnormal flight profiles based on specific aircraft characteristics, including unusual attitudes.

(j) Normal, emergency, and abnormal procedures.

(k) Landing with simulated powerplant failure.

(l) Normal and crosswind landings.

(m) Landing from a no-flap or a nonstandard flap approach.

(n) Rejected landing.

(o) Fuel-low level/return to base procedures.

(p) Aerobatics, if appropriate to the airplane and requested by the applicant, if the applicant can provide operating limitations required by § 91.319 authorizing aerobatics and specific maneuvers.

8. COMPARABLE AIRCRAFT. Some single-seat aircraft have two-seat models that may be available for the applicant's use in training. Some two-seat aircraft are unique and require training in comparable

aircraft. Other unusual circumstances may also require the use of comparable aircraft and must be coordinated with the NPO.

A. An applicant with a single-seat airplane (e.g., MiG-15) must accomplish the training described in paragraph 7B(2). However, the applicant may accomplish that training in a comparable two-seat airplane (e.g., MiG-15-UTI).

B. In determining comparable aircraft for training purposes and for issuing authorizations, the FAA requires the applicant to receive training in the most complex aircraft that most nearly duplicates the characteristics of the specific aircraft for which the authorization is issued.

C. When a comparable aircraft is used for initial training, the applicant should contact an EAE, who will coordinate with the NPO, to ensure that the proposed aircraft meets the requirements of this chapter.

(1) Include transition ground and flight training appropriate to the aircraft.

(2) Provide the applicant with training at least equivalent in scope and content to the requirements as outlined in paragraph 7B(1) and (2).

D. Training in Comparable Aircraft. In general, a comparable aircraft is one that duplicates the flight characteristics with enough similarity that flight training in one would qualify the pilot (with aircraft-specific ground training being the only further training required) to safely operate the actual aircraft.

(1) With all the varieties of foreign and military aircraft that have been produced over the years, reducing this concept to a definitive formula is not practical. However:

(a) Generally, fighters built before 1960 or jet trainers from any period are not comparable to current first-line fighters, regardless of wing design.

(b) Attack helicopters are not comparable to large transport helicopters, and so on. The type of wing, thrust ratios, specific flight characteristics, and installed engineering and systems must all be taken into account.

(2) Sets of aircraft have been established to indicate comparable aircraft that may be used for training and maintaining recency of experience. If an airman is unable to determine whether the aircraft are comparable, the airman may contact the NPO.

(3) No pilot will be found qualified for issuance of an authorization for a specific aircraft based entirely on initial training in a comparable aircraft. If the applicant completes initial training in a comparable aircraft, the applicant must then complete transition training and complete a flight evaluation before issuance of a specific aircraft authorization.

E. Sets of Aircraft. The following sets of aircraft are established as comparable:

(1) Set I. Piston-powered, single-engine, conventional landing gear.

(2) Set II. Piston-powered, single-engine, tricycle landing gear.

(3) Set III. Piston-powered, multiengine, two-engine.

(4) Set IV. Piston-powered, multiengine, more than two engines.

(5) Set V. Turbojet-powered, single-engine, straight-wing.

(6) Set VI. Turboprop or turbojet-powered, multiengine, straight-wing.

(7) Set VII. Turbojet-powered, single-engine, swept wing, subsonic.

(8) Set VIII. Turbojet-powered, single-engine, swept wing, supersonic.

(9) Set IX. Turbojet-powered, multiengine, swept wing, supersonic.

(10) Set X. Helicopters.

NOTE: The sets identifying each specific aircraft make and model are located in Figure 32-1.

F. Initial Qualification Training. For single-seat aircraft, the following guidance must be used concerning the use of comparable aircraft for initial qualification training. The comparable multiseat aircraft used during training must be equipped with functioning dual controls per part 61, § 61.45.

(1) Set I. Comparable aircraft is either the Texan or any multiseat aircraft from Set I.

(2) Set II. Comparable aircraft is the Trojan.

(3) Set III. Comparable aircraft is the Mitchell or any aircraft approved by the NPO.

(4) Set IV. These are generally crew-served aircraft; therefore, no comparable aircraft will be listed.

(5) Set V through Set X. The many technically different design characteristics of these turbojet-powered aircraft must be acknowledged and respected. Therefore, no comparable aircraft will be listed for these sets. The use of a multiseat aircraft for initial qualification training will be approved by the NPO.

G. All Types and Makes of Piston-Powered Airplanes. In the past, airmen have been issued LOAs with the authorization for all types and makes of high-performance single- or multiengine piston-powered airplanes, commonly known as an "unlimited LOA." An individual who holds such an LOA and applies for an authorization will have an all-makes/models, or single-engine or multiengine piston-powered (as appropriate) authorization on his or her reissued airman certificate. In addition to the above-listed authorization, each aircraft that the individual has flown as PIC will be listed on the airman certificate.

(1) Individuals who have this authorization may become qualified in additional Set I, II, III, and IV aircraft by completing training for the aircraft.

(2) The ground and flight training program must meet the requirements listed in paragraph 7B(1) and (2).

(3) The ground training, including cockpit familiarization, will be conducted by a CFI or an authorized instructor who will make an endorsement indicating completion of the ground training in the airman's logbook. The authorized instructor or CFI will make a solo endorsement in the airman's logbook to complete the flight training. If the aircraft is a multiseat with functioning dual controls, the authorized instructor or CFI will complete the flight training with the airman. Once both portions of the training are completed, the individual will be considered qualified in the aircraft.

(4) Within 60 days of completion of the qualification training, the airman may present a completed Form 8710-1 along with the logbook endorsements to an EAE. Upon verification of the aircraft qualification, the aircraft will be added as an authorized aircraft to the airman's certificate.

(5) The presence of the "all makes and models" authorization indicates that the holder need only obtain aircraft specific training and a logbook endorsement from an authorized instructor to show qualification to add an additional Set I, II, III, or IV aircraft to the pilot certificate. The "all makes and models" authorization DOES NOT grant an authorization to act as PIC of an aircraft NOT listed on the pilot certificate.

H. Experimental Aircraft of Same Make and Model as Type-Designated Aircraft.

(1) Some makes and models of surplus military aircraft were originally type-certificated in the limited or restricted category after World War II. At that time they were issued type certificates with type ratings, if appropriate. Examples of these aircraft are the Fortress F/G designations, Havoc B/C/G/H/J, Lightning G/J/M/L, Mitchell, and Marauder C version. All of these aircraft received type ratings and require the PIC to hold an appropriate type rating since they are large aircraft. Subsequently, many of the aircraft have been certificated in the experimental category. For operation of these aircraft, an airman may elect to satisfactorily complete either of the following procedures to serve as PIC of the aircraft:

(a) The applicant may complete the appropriate aircraft type rating practical test in the aircraft. Upon successful completion of all of the required tasks, the established type rating may be placed on the airman's certificate. The airman may then serve as PIC of aircraft of that make and model, regardless of the category of certification.

(b) The applicant may complete an acceptable program of training and satisfactorily complete the practical test/evaluation for the issuance of an aircraft authorization on the airman's certificate. The airman may only serve as PIC of aircraft of that make and model certificated in the experimental category.

(2) Aircraft with either a standard airworthiness certificate, or that conform to a type design in accordance with part 21, §§ 21.27 and 21.31 and have been issued a type certificate, require no additional authorization for an airman to act as PIC, other than that required by part 61 certification.

9. FLIGHT EVALUATION. Practical tests/ evaluations are required for those authorization applicants who do not meet the military program requirements of paragraph 7A(1) (except for airmen with all-makes/models, single-engine or multiengine piston-powered authorizations in Set I, II, and III aircraft). These evaluations must be conducted in accordance with FAA-S-8081-5, current edition.

A. Conduct of the Flight Evaluation. An EAE (or a qualified ASI (Operations) authorized by the NPO) must conduct the knowledge and flight evaluation. The evaluation will be conducted in the specific aircraft the applicant has applied for an authorization in (for multiseat aircraft). For those applicants using comparable aircraft (for single-seat or multiseat aircraft), the evaluation will be conducted in the comparable aircraft. The final portion of the flight evaluation must be conducted in the specific aircraft and may be observed from the ground or in a chase aircraft.

(1) The EAE who conducts the evaluation is responsible for determining whether the applicant meets the standards outlined in the objective of each task within the areas of operation in FAA-S-8081-5D.

(a) The EAE will meet this responsibility by determining whether the applicant's knowledge and skill meets the objective in all required tasks.

(b) The EAE may observe the flight from the ground (for single-seat aircraft) or from the aircraft being used for the test. If the EAE is onboard the aircraft and serves as a required flight crewmember, he or she must be qualified and current in the aircraft and the aircraft must have fully functioning dual controls.

(2) ASIs conducting flight checks must be authorized by the NPO and must meet the qualification and currency requirements of Volume 2, Chapter 1, Introduction to Part 61 Related Tasks, and the current edition of Order 4040.9, FAA Aircraft Management Program, appendix 11.

B. Unsatisfactory Flight Evaluation.

(1) If an applicant does not perform satisfactorily, the EAE will issue FAA Form 8060-5, Notification of Disapproval of Application. The applicant may reapply after receiving additional training and submitting Form 8710-1.

10. ISSUANCE. After the EAE has received a completed application, accepted the training documentation, reviewed the recommendation, and conducted a practical test/evaluation with a satisfactory result, the EAE issues the authorization on the airman certificate.

11. LIMITATIONS.

A. Visual Flight Rules (VFR).

(1) Based on the recommendation of an authorized instructor or CFI and the completion of the flight evaluation by an EAE, the following limitation for each specific aircraft may be placed on the airman certificate: VFR ONLY.

(2) This limitation applies unless the applicant meets the requirements of paragraph 13.

(3) This limitation may not be placed on a specific turbojet-powered aircraft.

B. Instrument Rating. All applicants for type ratings in turbojet-powered aircraft must possess an instrument rating.

12. RECENCY OF EXPERIENCE. ASIs should encourage holders of authorizations to complete a flight review in at least one aircraft for which an authorization is held every 24 calendar-months. This flight review may be conducted in a comparable aircraft per the appropriate aircraft sets referenced in paragraph 8. The flight review will be conducted in accordance with part 61, § 61.56 by a CFI or an authorized instructor.

13. INSTRUMENT PRIVILEGES.

A. Requirements for Instrument Privileges. If an applicant for an authorization or an authorization holder desires to exercise instrument privileges in an authorized aircraft, then the applicant must meet the following requirements:

(1) Hold an instrument rating or an Air Transport Pilot (ATP) certificate.

(2) Meet the instrument currency requirements per § 61.57(c) or (d).

(3) Demonstrate instrument competency to an EAE during the flight evaluation or to an authorized instructor or CFI during the training in a comparable aircraft in accordance with the ATP PTS.

NOTE: Instrument endorsements can only be conducted by an EAE or an ASI authorized by the NPO.

B. Removal of the VFR ONLY Limitation. A pilot may have a VFR ONLY limitation removed by meeting the following requirements:

(1) Demonstrating instrument flight competence in the actual aircraft, in a simulator, or in a similarly equipped aircraft that has comparable performance characteristics (see paragraph 8). A comparably equipped aircraft should contain equipment similar to that of the airplane for which the authorization is held.

(2) An instrument competence demonstration may be conducted in conjunction with that required by another operating rule or a military instrument proficiency check.

(3) When a demonstration is conducted in a simulator or a comparably equipped aircraft, the applicant must demonstrate competence based solely upon the equipment/crew complement for the aircraft for which the authorization is held. For example, if an aircraft does not require an SIC or have an autopilot system, the applicant may not use an SIC or the autopilot for the instrument competence demonstration.

14. AIRCRAFT TYPES NOT PREVIOUSLY OPERATED IN THE UNITED STATES. On occasion, an aircraft that belongs in one of the sets described in paragraph 8E is brought into the U.S. registry, which requires the pilot to hold an authorization in accordance with paragraph 4.

A. Field personnel who receive inquiries about such aircraft should contact the NPO.

B. If designators for authorized aircraft are not listed or are otherwise incorrect or unavailable, ASIs are instructed to bring the omission or required correction to the attention of the NPO. Inclusion in the lists will be made through coordination with AFS-800 and the Airman Certification Branch, AFS-760.

15. TEMPORARY LETTERS OF AUTHORIZATION.

A. For one-of-a kind aircraft, first of a type, amateur-built, practice in a single-place aircraft, or other special cases, a temporary LOA may be issued. Temporary LOAs may only be issued for a specific purpose and should be for a specified, limited duration. ASIs who receive requests for temporary LOAs for operating experimental aircraft must coordinate with the NPO before issuing them. These LOAs may be required to ensure compliance with the aircraft operating limitations.

B. Temporary LOAs for the operation of experimental aircraft should not be confused with temporary LOAs for the operation of type-certificated aircraft. Section 61.31(b) permits operating type-certificated aircraft under limited circumstances. These LOAs are issued in accordance with the guidance in vol. 2, chap. 33.

SECTION 2. PROCEDURES

1. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. This task requires knowledge of part 61 requirements, FAA policies, and qualification as an ASI (Operations) authorized by the NPO. Additionally, if an ASI conducts a flight proficiency demonstration in certain turbine-engine or large aircraft, the ASI must meet specific aircraft qualifications.

B. Coordination. This task requires coordination with the NPO and may require coordination with the airworthiness unit, EAEs, other Operations ASIs, or industry organizations.

2. REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Title 14 CFR parts 1, 61, and 91
- FAA Order 8130.2, Airworthiness Certification of Aircraft and Related Products
- FAA-S-8081-5, Airline Transport Pilot and Aircraft Type Rating Practical Test Standards for Airplanes

B. Forms:

- Form 8710-1, Airman Certificate and/or Rating Application
- Form 8060-4, Temporary Airman Certificate
- Form 8060-5, Notice of Disapproval of Application

C. Job Aids:

- Sample letters and figures
- Job Task Analysis (JTA): O3.1.55

3. PROCEDURES.

A. Receive Initial Inquiry.

(1) Upon inquiry from an applicant, explain the application procedures and eligibility requirements for an aircraft authorization.

(2) Determine which training option the applicant will complete.

(3) If the applicant meets the eligibility requirements of section 1, paragraph 5, advise the applicant to provide the following documents to the EAE:

(a) A completed and correct Form 8710-1, in ink or typewritten.

(b) A valid airman certificate.

(c) A valid medical certificate.

(d) A personal logbook or other records substantiating the flight experience requirements.

(e) An endorsement from an authorized instructor.

(f) Documentation of completion of training.

(g) An acceptable form of photo identification.

B. Review Application. Collect and review the documents and records listed in paragraph 3A(3) above.

(1) Verify the applicant's identity by inspecting an acceptable form of identification (see vol. 2, ch. 1, section 4).

(a) Compare the identification with the personal information provided on Form 8710-1.

1. If the applicant's identity can be verified, review Form 8710-1.

2. If the applicant's identity cannot be verified because of lack of identification or inadequate identification, explain what type of identification is acceptable. Instruct the applicant to return with appropriate identification to reapply.

(b) If the applicant's identity appears to be different from the information on Form 8710-1 or it

appears that an attempt at falsification has been made, do not continue with this task. See Volume 2, Chapter 182, Conduct an Investigation to Determine Compliance. Open a PTRS file using activity number 1733.

(c) Ensure completion of the airman certification information.

(d) Ensure completion of the recommending instructor information.

(e) Determine if the applicant needs a temporary authorization to conduct practice or proficiency flying, and if so, issue a temporary authorization in accordance with the procedures shown in section 1, paragraph 7A(2)(b).

(2) Review Form 8710-1 for the following:

(a) In Section I, verify that the applicant has marked the appropriate box for grade of certificate and has marked the box labeled "Other" and has written "Aircraft Authorization" in the blank.

(b) Ensure that the applicant has completed Section I, items A through V.

(c) Ensure that the applicant has completed the appropriate portion of Section II.

(d) Ensure that the applicant has completed the relevant portions of Section III.

(e) Ensure that the applicant checked "Yes" or "No" in Section IV.

(f) Ensure that the applicant has signed and dated the application form in Section V.

(g) An authorized instructor's or CFI's recommendation (reverse side of Form 8710-1) is required for an application for authorization. Additionally, an endorsement must be made in the pilot's logbook for the knowledge and practical test/evaluation.

(h) If Form 8710-1 is not complete, do not accept the application; indicate the incomplete areas and return the application to the applicant for correction.

(i) If Form 8710-1 is complete and accurate, determine if the applicant is eligible for the issuance of an authorization or for a practical evaluation.

- Substantiate the applicant's eligibility by examining the pilot's logbook or other records, comparing the data with that listed on the Form 8710-1 and the requirements from section 1, paragraph 5

(3) If the applicant is not eligible, indicate the areas that are deficient and close out the PTRS with an appropriate comment.

(4) If the applicant is eligible for the issuance of an authorization, complete FAA Form 8060-4 with the specific aircraft listed (Figure 32-4).

(5) Complete PTRS with comments.

C. Conduct Aeronautical Knowledge and Practical Test/Evaluation. An ASI (Operations) or an EAE may accomplish the aeronautical knowledge and practical test/evaluation.

(1) Operations ASIs are qualified to conduct flight evaluations in particular aircraft if they:

(a) Have prior experience in that or comparable aircraft.

(b) Meet the recency of experience requirements, including FAA Order 4040.9 requirements for airman certification.

(c) Have listed their experience requirements with the Flight Standards Inspector Resource Program (FSIRP) in the Southwest Regional Office, ASW-200.

(d) Are designated by the NPO.

(2) If an ASI is to conduct the flight evaluation in the aircraft, the Operations ASI should coordinate with the airworthiness unit to examine the aircraft and/or the airworthiness documentation.

(3) If the Airworthiness ASI determines that the aircraft is not in safe condition for flight or that the documentation is not adequate, reschedule the flight demonstration.

(4) An Operations ASI may conduct the aeronautical knowledge test with the applicant and observe a flight evaluation either from the ground or in a chase aircraft.

(5) If the demonstration is unsatisfactory, the ASI should perform the following:

(a) Debrief the applicant on the deficient areas.

(b) Reschedule the demonstration.

(c) Issue a notice of disapproval, granting credit for the maneuvers passed.

(d) If necessary, reissue a temporary authorization for the applicant to conduct proficiency and practice flights.

(e) On Form 8710-1, in the Aviation Safety Inspector or Technician Report section:

1. Check the box labeled "Disapproved."

2. Indicate the location and duration of the flight and ground tests.

3. In the field for Certificate or Rating for Which Tested, enter "Aircraft Authorization."

4. Indicate the type of aircraft and the registration number.

5. Enter the date of the test, sign the report, and identify the FSDO by acronym.

6. In the Attachments section, check the box marked "Airman's Identification." Indicate what was used to verify the applicant's identity.

(6) If the demonstration is satisfactory, issue FAA Form 8060-4 with the aircraft authorization and any appropriate limitations (Figure 32-4).

(a) Explain the authorization limitations and instrument privileges (section 1, paragraph 13).

(b) On FAA Form 8710-1, in the Aviation Safety Inspector and Technician Report section:

1. Check the box labeled "Approved."

2. Indicate the location and duration of the flight and ground tests.

3. In the field for Certificate or Rating for Which Tested, enter "Aircraft Authorization."

4. Indicate the type of aircraft and the registration number.

5. Enter the date of the test, sign the report, and identify the FSDO by acronym.

6. In the attachments section, check the box marked "Airman's Identification." Indicate the document used to verify the applicant's identity.

D. Complete Certification File. Complete the certification file.

(1) Ensure the Aviation Safety Inspector and Technician Report section of Form 8710-1 is complete.

(2) Forward the completed certification file to AFS-760.

(3) Complete PTRS with comments.

E. PTRS Action.

(1) The PTRS is available for field use through the National PTRS.

(2) Transmittal information:

(a) Activity number: 1579.

(b) Make-Model-Series: If the aircraft is not listed in the lookup table, use:

1. EXHIB-EXPER-DOM for other domestic experimental aircraft; and

2. EXHIB-EXPER-FOR for other foreign experimental aircraft.

(c) Applicant and Instructor Name: Self-explanatory.

(d) Section III, Equipment: Manufacturer, model designation (e.g., L-39 or TU-144), serial number, remarks (N-number).

(e) Section IV, Comment: Use appropriate comment and opinion codes, and list

potential problems, certification information, limitations, authorizations, and any other descriptive information, including “nice to know” information for other ASIs.

4. TASK OUTCOMES. Completion of this task results in one or more of the following:

A. Issuance or reissuance of an authorization.

B. Denial of an authorization.

C. Issuance or reissuance of a temporary authorization.

D. Issuance of a letter of discontinuance with credit given for flight procedures demonstrated.

5. FUTURE ACTIVITIES.

A. Issuance of additional authorizations for other aircraft.

B. Removal of a limitation from an authorization.

C. Possible enforcement investigation if the holder of an authorization operates contrary to 14 CFR, with action against the pilot certificate held.

FIGURE 32-1. EXPERIMENTAL AIRCRAFT AUTHORIZATIONS

Aircraft authorizations underlined in green are no longer being issued and applicants should apply for type ratings. Aircraft authorizations italicized in red are no longer being issued.

Set I	Set II	Set III	Set IV	Set V
BF-109	BL-P39	C-82A	B-17	AV-L29
CHV-F4U	BL-P63	CV-P4Y	B-29	AV-L39
CHV-0S2U	N-T28	CV-PBY-5	CV-LB30	BA-167
CU-P36		DC-A20	JU-52	*BD-5J*
CU-P40		DC-B23	LANCASTER	CL-41
CU-SB2C		DC-B26	SHAKLTN	DH-112
DC-AD1		FA-119C		DH-115
DC-A24		FA-C123		GANNETT
FW-190		G-111		G-F9F
G-F3F		G-F7F		PROVOST
G-F4F		G-S2		R-F84
G-F6F		HE-111		S-211
G-F8F		HW-500		SO-G2
G-J2F		L-18		SW-C3605
G-TBM		L-P2V		T-33
H-HURC		L-P38		TT-1
H-FB-11		L-PV2		VIPER
H-TMPST		M-B26		WSK-TS11
N-A36 (N-P51)		MOSQUTO		
N-047		N-B25		
N-P51		N-F82		
N-P64				
N-T6S				
MI-A6M				
R-P43				
R-P47				
SE-P35				
SPITFIR				
YAK-3				
YAK-9				
YAK-11				

Set VI	Set VII	Set VIII	Set IX	Set X
BL-P59	BAE-AV8	CHV-F8	*DC-F15*	Mi-8
CA-HA200	*BD-10*	*CV-F16*	*DC-F18*	Mi-14
CANBERA	DC-A4	L-F104	DC-F4	Mi-17
CE-T37	GNAT	MiG-21	LIGHTING	Mi-24
CM-170	HUNTER	N-F100	MiG-23	*SK-70*
DO-AJET	MiG-15	SA-J35	MiG-29	
G-73T	MiG-17		NH-F5	
G-OV1	N-F86		NH-T38	
MAVERICK				
ME-262				
METEOR				
RI-OV10				
RI-T2				

FIGURE 32-2. SAMPLE TEMPORARY LETTER OF AUTHORIZATION

NOTE: The temporary letter of authorization is issued by the NPO or by the local FSDO in coordination with the NPO.

FAA Letterhead

[*date*]

[*name and address*]

Dear [*name*]:

This temporary letter of authorization allows you to act as Pilot-in-Command (PIC) in the following experimental category aircraft:

- North American F-86 Sabre (VFR Only)

Flights made under this authorization will be conducted in accordance with the Special Airworthiness Certificate operating limitations and all applicable Federal aviation regulations. This letter does not authorize the performance of aerobatics in air shows.

Flights made under this letter must only be for proficiency and practice flying in preparation for a practical test.

Operations are limited to the following geographical area:

- [*Inspectors should describe an area large enough to reasonably conduct proficiency and practice flying in preparation for a practical test for the type airplane.*]

This authorization expires on [*60 days from date of issuance*] unless sooner modified, suspended, or revoked by this Agency.

Sincerely,

[*POI' s signature*]

FIGURE 32-3. LETTER OF AUTHORITY (ISSUED ONLY BY THE NATIONAL PROGRAM OFFICE)

FAA Letterhead

[*date*]

[*name and address*]

Dear [*name*]:

This letter authorizes you to act as Pilot-in-Command (PIC) in the following experimental category aircraft:

- "New and Different-1"

Flights made under this authorization will be conducted in accordance with the Special Airworthiness Certificate operating limitations and all applicable Federal aviation regulations. This letter by itself does not authorize the performance of aerobatics in air shows.

This authorization expires on upon the issuance of an airman certificate bearing this model of aircraft unless sooner modified, suspended, or revoked by this Agency.

Sincerely,

[*NPO manager*]

FIGURE 32-4. TEMPORARY AIRMAN CERTIFICATE (WITH THE SPECIFIC AIRCRAFT LISTED)

I. UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION
ii. **TEMPORARY AIRMAN CERTIFICATE**

III. CERTIFICATE NO. 1234567

THIS CERTIFIES THAT IV. Daniel Roman

V. 916 Books Ct
Duke, CA 23456

DATE OF BIRTH	HEIGHT	WEIGHT	HAIR	EYES	SEX	NATIONALITY VI.
12/2/1957	72IN.	190	Gray	Blue	M	USA

IX. has been found to be properly qualified and is hereby authorized in accordance with the conditions of issuance on the reverse of this certificate to exercise the privileges of

Airline Transport Pilot

RATINGS AND LIMITATIONS

XII. Airplane Multiengine Land
Commercial Privileges Airplane Single-Engine Land
B-747
B-747 Circ Apch-VMC Only
Authorized Experimental Aircraft, DC-A4, R-P47

XIII.

THIS IS ☐ AN ORIGINAL ISSUANCE ☒ A REISSUANCE OF THIS GRADE OF CERTIFICATE

DATE OF SUPERSEDED AIRMAN CERTIFICATE: 01/12/2000

BY DIRECTION OF THE ADMINISTRATOR

X. DATE OF ISSUANCE: 05/10/2006

X. SIGNATURE OF EXAMINER OR INSPECTOR: *C. Dooley* Christopher Dooley

EXAMINER'S DESIGNATION NO. OR INSPECTOR'S REG. NO.: WA-01-01

DATE DESIGNATION EXPIRES: 02/12/2007

vii. AIRMAN'S SIGNATURE *Daniel Roman*

FAA Form 8060-4 (8-79) USE PREVIOUS EDITION

SAMPLE